

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1-6. (Cancelled)

7. (Currently Amended) At least one chemical entity chosen from ~~of claim 21~~ ~~wherein the at least one chemical entity is~~ N3-(2-methoxybenzyl)-5-(4-phenoxyphenyl)-pyrazine-2,3-diamine and pharmaceutically acceptable salts thereof.

8-13. (Cancelled)

14. (Currently Amended) At least one chemical entity of claim ~~[[21]]~~ 7 wherein in an in vitro assay of kinase modulation, the at least one chemical entity exhibits an IC<sub>50</sub> value less than or equal to 25 micromolar.

15. (Currently Amended) A pharmaceutical composition comprising at least one chemical entity of claim ~~[[21]]~~ 7 and at least one vehicle chosen from pharmaceutically acceptable carriers and excipients.

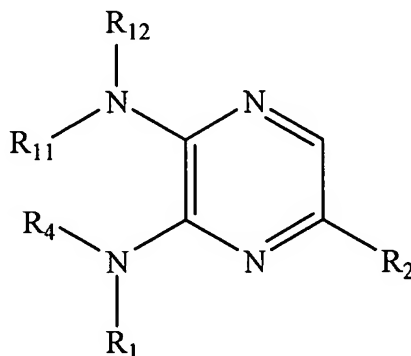
16-25. (Cancelled)

26. (Currently Amended) At least one chemical entity of claim ~~[[25]]~~ 33 wherein in an in vitro assay of kinase modulation, the at least one chemical entity exhibits an IC<sub>50</sub> value less than or equal to 25 micromolar.

27. (Currently Amended) A pharmaceutical composition comprising at least one chemical entity of claim [[25]] 33 and at least one vehicle chosen from pharmaceutically acceptable carriers and excipients.

28-32. (Cancelled)

33. (New) At least one chemical entity chosen from compounds of the formula:



and pharmaceutically acceptable salts thereof, wherein

R<sub>1</sub> is chosen from

benzyl, and

substituted benzyl chosen from mono-, di-, and tri-substituted benzyl

wherein the substituents are independently chosen from

hydroxy,

nitro,

cyano,

amino,

halo,

(C<sub>1</sub>-C<sub>6</sub>)alkyl,

(C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
(C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino,  
di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino,  
mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
amino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
benzamido,  
substituted benzamido chosen from mono-, di-, and tri-substituted  
benzamido and wherein the substituents are independently  
chosen from hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl,  
and (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
benzenesulfonamido,  
substituted benzenesulfonamido chosen from mono-, di-, and tri-  
substituted benzenesulfonamido wherein the substituents  
are independently chosen from hydroxy, nitro, cyano, amino,  
halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, and (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
heteroaryl,  
substituted heteroaryl chosen from mono-, di-, and trisubstituted  
heteroaryl wherein the substituents are independently  
chosen from hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-  
C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino,  
mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, and di((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
benzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
dibenzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,

substituted benzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl chosen from mono-, di-, and trisubstituted benzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl wherein the substituents on the benzyl are independently chosen from hydroxy, nitro, cyano, amino, and halo, substituted dibenzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl chosen from mono-, di-, and trisubstituted dibenzylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl wherein the substituents on the benzyl are independently chosen from hydroxy, nitro, cyano, amino, and halo, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, and heteroaryl linked to the benzyl by a group chosen from ether, sulfide, (C<sub>1</sub>-C<sub>3</sub>)carbonyl, and secondary amino;

R<sub>2</sub> is chosen from phenyloxyphenyl, and

substituted phenyloxyphenyl chosen from mono-, di-, and tri-substituted phenyloxyphenyl wherein the substituents are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, and amino(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sub>4</sub> is chosen from

hydrogen,  
straight chain (C<sub>1</sub>-C<sub>6</sub>)alkyl,  
branched chain (C<sub>3</sub>-C<sub>6</sub>)alkyl,  
phenyl,  
substituted phenyl chosen from mono-, di-, and tri-substituted phenyl wherein the substituents are chosen from hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-

C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, and amino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
heteroaryl, and  
substituted heteroaryl chosen from mono-, di-, and tri-substituted  
heteroaryl wherein the substituents are chosen from  
hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, and amino(C<sub>1</sub>-C<sub>6</sub>)alkyl; and

R<sub>11</sub> and R<sub>12</sub> are independently chosen from

hydrogen,  
straight chain (C<sub>1</sub>-C<sub>7</sub>)alkyl,  
branched chain (C<sub>3</sub>-C<sub>7</sub>)alkyl, in which the branched alkyl chains are  
allowed to also form a 3-7 membered ring chosen from  
heterocycloalkyl and cycloalkyl rings,  
(cyclo(C<sub>3</sub>-C<sub>6</sub>)alkyl)methyl,  
(C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl,  
sulfonamido,  
mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino,  
di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino,  
mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl),  
di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl),  
phenyl,  
substituted phenyl chosen from mono-, di-, and tri-substituted  
phenyl wherein the substituents are chosen from hydroxy,  
nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-

C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, and amino((C<sub>1</sub>-C<sub>6</sub>)alkyl),

benzyl,

substituted benzyl chosen from mono-, di-, and tri-substituted

benzyl wherein the substituents are chosen from hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, and amino((C<sub>1</sub>-C<sub>6</sub>)alkyl),

heteroaryl,

substituted heteroaryl chosen from mono-, di-, and tri-substituted

heteroaryl wherein the substituents are chosen from hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, and amino((C<sub>1</sub>-C<sub>6</sub>)alkyl),

heteroaryloxyphenyl,

substituted heteroaryloxyphenyl chosen from mono-, di-, and tri-

substituted heteroaryloxyphenyl wherein the substituents are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, and amino(C<sub>1</sub>-C<sub>6</sub>alkyl),

phenoxyphenyl,

substituted phenoxyphenyl chosen from mono-, di-, and tri-substituted phenoxyphenyl wherein the substituents are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, and amino(C<sub>1</sub>-C<sub>6</sub>alkyl),

phenyl-piperazinyl,

substituted phenyl-piperazinyl chosen from mono-, di-, and tri-substituted phenyl-piperazinyl wherein the substituents on the phenyl ring are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, mono-(C<sub>1</sub>-C<sub>6</sub>alkyl)amino(C<sub>1</sub>-C<sub>6</sub>alkyl), and di(C<sub>1</sub>-C<sub>6</sub>alkyl)amino(C<sub>1</sub>-C<sub>6</sub>alkyl),

heteroaryl-piperazinyl, and

substituted heteroaryl-piperazinyl chosen from mono-, di-, and tri-substituted heteroaryl-piperazinyl wherein the substituents on the heteroaryl ring are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyloxy(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono-((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, di((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino, mono-(C<sub>1</sub>-C<sub>6</sub>alkyl)amino(C<sub>1</sub>-C<sub>6</sub>alkyl), and di(C<sub>1</sub>-C<sub>6</sub>alkyl)amino(C<sub>1</sub>-C<sub>6</sub>alkyl).

34. (New) At least one chemical entity of claim 33, wherein  
R<sub>11</sub> and R<sub>12</sub> are independently chosen from

hydrogen,  
straight chain (C<sub>1</sub>-C<sub>7</sub>)alkyl,  
branched chain (C<sub>3</sub>-C<sub>7</sub>)alkyl, in which the branched alkyl chains are  
allowed to also form a 3-7 member ring chosen from  
heterocycloalkyl and cycloalkyl rings;  
phenyl,  
benzyl,  
heteroaryl,  
substituted phenyl chosen from mono-, di-, and tri-substituted phenyl  
wherein the substituents are independently chosen from hydroxy,  
nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perfluoroalkyl, and  
(C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
substituted benzyl chosen from mono-, di-, and tri-substituted benzyl  
wherein the substituents are independently chosen from hydroxy,  
nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perfluoroalkyl, and  
(C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
substituted heteroaryl chosen from mono-, di-, and tri-substituted  
heteroaryl wherein the substituents are independently chosen from  
hydroxy, nitro, cyano, amino, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)perfluoroalkyl, and (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
heteroaryloxyphenyl,  
phenyloxyphenyl,  
substituted heteroaryloxyphenyl chosen from mono-, di-, and tri-  
substituted heteroaryloxyphenyl wherein the substituents are  
independently chosen from hydroxy, nitro, cyano, amino, halo,  
sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, and (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
and



substituted phenyloxyphenyl chosen from mono-, di-, and tri-substituted phenyloxyphenyl wherein the substituents are independently chosen from hydroxy, nitro, cyano, amino, halo, sulfonamido, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)perhaloalkyl, and (C<sub>1</sub>-C<sub>6</sub>)alkoxy.

35. (New) At least one chemical entity of claim 33, wherein R<sub>4</sub> is hydrogen.